Contribution ID: **190**   Type: **Contributed talk**

Overview and Future Upgrades at CERN's North and East Areas

Tuesday, 9 July 2024 15:00 (20 minutes)

The CERN secondary beam lines of the North and the East Area are designed to deliver beams of secondary and tertiary particles as well as attenuated primary protons and ions from the SPS and PS accelerators. With its diverse portfolio, the CERN experimental areas serve over 200 test beams and experiments per year with more than 2000 users. In context of the Physics Beyond Colliders (PBC) initiative, various new ideas have been presented for exploiting the full scientific potential and intensity for fixed target experiments. These include experiments like AMBER, in the QCD sector, with a rich physics programme ranging from proton radius measurements to meson structure studies, as well as experiments addressing BSM physics, like NA64 and ShiP/BDF, requiring high intensity beams. Requests for different species and high intensities of ion beams have also been brought forward by the NA61 and NA60++ collaborations. Various developments and upgrades are therefore being studied and planned for the CERN North and East Area beams during and after the Long Shutdown 3 to be able to serve these diverse requests. The presentation will include an overview of the existing beam lines and facilities at the CERN North and East Area, as well as showcase the upcoming plans for consolidation and upgrades to ensure the optimal physics operation and test beam runs for the coming decades.

session

A. Facilities and Detectors

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Session Classification: A. Facilities and Detectors